

PS - 68/64
12 March 1964

NGA review(s) completed.

MEMORANDUM TO: Chief, CIA/PID (NPIC)

FROM : Chief, Production Staff, PID

SUBJECT : Target Identification Performance Study

ATTACHMENTS : [] Work Statement
[] Research Work Statement
List of Priority Target Categories

1. A series of meetings were held on 9-10 March with []

research and [] The recently completed [] study on the effects of ground resolution on interpreter performance was discussed and the technique was held to be of value to those concerned with the operational problems in terms of systems required, to P & DS in terms of evaluating the equipment required to read out the photography, and to PID in terms of the combination of the two combined with operational techniques to satisfactorily interpret the materials to satisfy requirements levied by its customers.

2. While the technique of the first study was agreed upon as the proper way to provide this information, the materials used in it, due to the time constraints, do not allow its direct application to the problems faced by the three groups. In addition, it measured interpreter performance in terms of only one variable; that of ground resolution. It was agreed that further work should be done using more realistic objects to be identified, more realistic scales and resolutions, and taking into account other variables, such as stereo, color, haze, search problems, etc. To accomplish this, [] to prepare work statements and cost estimates for further studies. These are attached to this memorandum. Due to contractual difficulties, both firms have only proposed for the period up to the end of the fiscal year. Prior to that time, depending on what is learned from the preliminary work, more realistic cost estimates will be submitted for next fiscal year.

3. Basically, what is to be attempted, is to prepare a test that will reliably indicate P.I. interpretation performance as a function of ground resolution. Once this is done, this can serve as a measuring standard or "bench mark" against which other variables may be measured. For example, knowing precisely the performance of PI's on one set of photographs viewed

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monoscopically, we can give another equally skilled set of PI's the same area with stereo photography and obtain a measure of the benefits of stereo for each type of ground object in the area. Or the second group may interpret it using color, or some other technique. This may also be used to determine the relative merits of different types of viewing devices by giving one group the test to perform with a microscope and another group a rear-projection viewer.

4. The validity of the research will depend greatly on the types of performance measures prepared and their applicability to NPIC operations. This will require close cooperation by PID personnel. [] has requested that I be made available to assist [] in developing these performance measures and assisting in the data collection as in the previous study. [] has informally and very roughly estimated that this will take approximately 280 hours of my time between now and the end of the fiscal year, including attendance at a meeting to be held in Los Angeles on 23-25 March.

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5. A list of the types of target categories to be studied has been prepared and is included as an attachment. These items were selected from a larger list which was made up from a study of PID requirements for a one year period. Certain categories have been eliminated such as AE production because of their unique characteristics.

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